

What is claimed is:

- 1      1.      A method for processing seismic data comprising:
- 2            (a)      comparing data in a window comprising a portion of a first data segment
- 3                      with data in a corresponding window comprising a portion of a second
- 4                      data segment, wherein said first data segment and said second data
- 5                      segment are selected from a plurality of data segments acquired using a
- 6                      plurality of seismic sweeps; and
- 7            (b)      changing said data in a window using said data in a corresponding window
- 8                      based on said comparison.
- 1      2.      The method of claim 1, wherein changing said data in a window further comprises
- 2                      replacing said data in a window using said data in a corresponding window.
- 1      3.      The method of claim 1 further comprising stacking said plurality of data segments
- 2                      to form a new data segment.
- 1      4.      The method of claim 3 further comprising extracting a listen time from said new
- 2                      data segment.
- 1      5.      The method of claim 1 wherein said plurality of data segments each comprise a
- 2                      recorded data and a listen time.

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1 6. The method of claim 1 further comprising phase shifting said second data  
2 segment to a phase corresponding to said first data segment.

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7. The method of claim 1 wherein said second data segment comprises a  
combination of a plurality of said plurality of data segments.

1 8. The method of claim 7 wherein said combination comprises combining said  
2 plurality of said plurality of data segments using at least one of: i) an arithmetic  
3 average, ii) a median average, and iii) a weighted average.

1 9. The method of claim 1 further comprising using RMS values for comparing said  
2 data in a window of a first data segment with said data in a window of a second  
3 data segment.

1 10. The method of claim 1 wherein a listen time data segment is combined with an  
2 initial data segment by time series addition.